SECTION I –CLEAN VERSION OF PENDING CLAIMS

1 ~~34~~. (Twice Amended) A storage device, comprising:

2 a memory buffer;

3 a storage medium; and

4 a controller circuit coupled to the memory buffer and the storage medium, the
5 storage device and a separate storage device to couple to a host computer through a same
6 physical port having an Intelligent Drive Electronics (IDE) interface, the controller circuit
7 to receive data through the same physical port having the IDE interface and to store the
8 data into the buffer, the controller circuit to transmit the data from the buffer to the
9 storage medium simultaneously at least in part with the separate storage device
10 transmitting and/or receiving data using the same physical port having the IDE interface.

1 ~~35~~. (Unchanged) The storage device of claim ~~34~~, wherein the separate storage
2 device is a disk drive.

1 ~~36~~. (Unchanged) The storage device of claim ~~34~~, further comprising a formatting
2 circuit to format the data being stored in the storage medium.

1 ~~37~~. (Once Amended) The storage device of claim ~~34~~, wherein the controller circuit
2 includes a register, wherein bits stored in the register have a first state for indicating that
3 the storage device is receiving data through the same physical port having the IDE
4 interface and have a second state for indicating that the storage device is not receiving
5 data through the same physical port having the IDE interface.

1 ~~38~~. (Unchanged) The storage device of claim ~~34~~, wherein the storage medium is
2 different than a storage medium of the separate storage device.

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39. (Unchanged) The storage device of claim 38, wherein the storage medium of the storage device has a significantly slower transfer rate in comparison to a transfer rate of the storage medium of the separate storage device.

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40. (Twice Amended) A storage device, comprising:

a memory buffer;

a storage medium; and

a controller circuit coupled to the memory buffer and the storage medium, the storage device and a separate storage device to couple to a host computer through a same physical port having an Intelligent Drive Electronics (IDE) interface, the controller circuit to read data from the storage medium and to store the data in the buffer simultaneously at least in part with the separate storage device transmitting and/or receiving data on the same physical port having the IDE interface, the controller circuit to transmit the data from the buffer through the same physical port having the IDE interface.

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41. (Unchanged) The storage device of claim 40, wherein the separate storage device is a disk drive.

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42. (Unchanged) The storage device of claim 40, further comprising a formatting circuit to format the data being stored in the storage medium.

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43. (Once Amended) The storage device of claim 40, wherein the controller circuit includes a register, wherein bits stored in the register have a first state for indicating that the storage device is receiving data through the same physical port having the IDE interface and have a second state for indicating that the storage device is not receiving data through the same physical port having the IDE interface.

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~~44~~. (Unchanged) The storage device of claim ~~40~~, wherein the storage medium is different than a storage medium of the separate storage device.

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~~45~~. (Unchanged) The storage device of claim ~~44~~, wherein the storage medium of the storage device has a significantly slower transfer rate in comparison to a transfer rate of the storage medium of the separate storage device.

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~~46~~. (Once Amended) A storage device comprising:

a buffer to couple to a host computer through a physical port having an Intelligent Drive Electronics (IDE) interface, the physical port having the IDE interface also being coupled to a separate storage device, wherein the host computer can communicate data through the physical port having the IDE interface with only one of the storage device or the separate storage device at any given time;

a storage medium coupled to the buffer;

a first circuit to transfer data between the storage medium and the buffer responsive to commands from the host computer;

a second circuit to transfer data between the buffer and the host computer over the physical port having the IDE interface; and

a third circuit to release the physical port having the IDE interface for use with the separate storage device while the data is being transferred between the storage medium and the buffer.

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~~47~~. (Unchanged) The storage device of claim ~~46~~, further including:

a fourth circuit to generate interrupt signals for transmission to the host computer over an interrupt line shared with the separate storage device.

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48. (Unchanged) The storage device of claim 46, wherein the separate storage device is a disk drive.

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49. (Unchanged) The storage device of claim 46, wherein the storage medium is different than a storage medium of the separate storage device.

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50. (Unchanged) The storage device of claim 49, wherein the storage medium of the storage device has a significantly slower transfer rate in comparison to a transfer rate of the storage medium of the separate storage device.

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51. (Once Amended) A computer system comprising:

a host computer;

a physical port having an interface coupled to the host computer, wherein only one device can communicate with the host computer over the physical port having the interface at any given time

a first storage device coupled to the physical port having the interface;

a second storage device coupled to the physical port having the interface using the same pin out and pin description as the first storage device and including:

a storage medium;

a buffer coupled between the physical port having the interface and the storage medium; and

control circuitry to release the physical port having the interface for use with the first storage device while data is being transferred between the storage medium and the buffer.

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52. (Unchanged) The computer system of claim 51, wherein the second storage device is a data archival device.

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53. (Unchanged) The computer system of claim 51, wherein the interface is an IDE interface.

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54. (Unchanged) The computer system of claim 51, wherein the first storage device is a hard drive.

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55. (Unchanged) The computer system of claim 54, wherein the disk drive includes:

a disk storage medium; and

control circuitry to release the interface for use with the second storage device after the data has been transferred between the disk storage medium and the host computer.

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56. (Unchanged) The computer system of claim 51, wherein the first storage device and the second storage device share a terminal in the interface for sending interrupt signals.

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57. (Once Amended) A method comprising:

transmitting from a host computer over a single physical port having an Intelligent Drive Electronics (IDE) interface, to which a first storage device and a second storage device are coupled, a first command to the second storage device, wherein data can be transmitted between the host computer and only one of the first storage device and the second storage device at any given time; and

releasing the physical port having the IDE interface for use with the first storage device while the second storage device is accessing a tape medium in the second storage device responsive to the first command.

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58. (Unchanged) The method of claim 57, further including:

transmitting data between the host computer and the first storage device over the single IDE interface while the second storage device is accessing the tape medium in the second storage device responsive to the first command.

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59. (Once Amended) The method of claim 57, further including:

transmitting from the host computer over the single physical port having the IDE interface a second command to the first storage device, wherein the second command is a read or write command; and

releasing the single physical port having the IDE interface for use with the second storage device only after the first storage device has completed execution of the second command.

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60. (Once Amended) The method of claim 59, further including:

the single physical port having the IDE interface receiving an interrupt signal over an interrupt line shared by the first storage device and the second storage device; and

the host computer responding to the interrupt signal based on which of the first storage device and the second storage device currently control the single physical port having the IDE interface.

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61. (Once Amended) The method of claim 57, further including:

transmitting from the host computer over the single physical port having the IDE interface a second command to the first storage device, wherein the second command is a read or write command; and

releasing the single physical port having the IDE interface for use with the second storage device only after the first storage device has completed accessing a disk storage medium in the first storage device responsive to the second command.

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62. (Once Amended) The method of claim 57, further including:

the single physical port having the IDE interface receiving an interrupt signal over an interrupt line shared by the first storage device and the second storage device; and

the host computer responding to the interrupt signal based on which of the first storage device and the second storage device currently control the single physical port having the IDE interface.

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63. (Once Amended) The method of claim 57, wherein:

the first command is a read command; and

the method further includes transmitting the data from the buffer in the second storage device to the host computer over the single physical port having the IDE interface after releasing the single physical port having the IDE interface.

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64. (Unchanged) The method of claim 57, wherein the tape medium of the second storage device has a significantly slower transfer rate in comparison to a transfer rate of a storage medium of the first storage device.

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65. (Unchanged) The method of claim 57, wherein the second storage device is a data archival device.

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66. (Twice Amended) A method comprising:

transmitting, from a host computer over a single physical port having an Intelligent Drive Electronics (IDE) interface to which a first storage device and a second storage device are coupled, a command wherein data can be transmitted between the host computer and only one of the first storage device and the second storage device at any given time;

transmitting data between the host computer and a buffer in the second storage device over the single physical port having the IDE interface responsive to the command;

transmitting data between the buffer and a storage medium in the second storage device responsive to the command; and

transmitting data between the host computer and the first storage device over the single physical port having the IDE interface simultaneous with at least part of the transmitting of data between the buffer and the storage medium.

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67. (Unchanged) The method of claim 66, wherein the command is a write command and the transmitting of data between the host computer and the buffer in the second storage device is performed before the transmitting of data between the buffer and the storage medium in the second storage device.

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68. (Unchanged) The method of claim 66, wherein the command is a read command and the transmitting of data between the host computer and the buffer in the second storage device is performed after the transmitting of data between the buffer and the storage medium in the second storage device.

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69. (Twice Amended) The method of claim 66, further including:

transmitting, from the host computer over the single physical port having the IDE interface, a second command to the first storage device, wherein the second command is a read or write command; and

releasing the single physical port having the IDE interface for use with the first storage device only after the second storage device has completed execution of the second command.

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70. (Once Amended) The method of claim 69, further including:

the single physical port having the IDE interface receiving an interrupt signal over an interrupt line shared by the first storage device and the second storage device; and

the host computer responding to the interrupt signal based on which of the first storage device and the second storage device currently control the physical port having the IDE interface.

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71. (Once Amended) The method of claim 66, further including:

the single physical port having the IDE interface receiving an interrupt signal over an interrupt line shared by the first storage device and the second storage device; and

the host computer responding to the interrupt signal based on which of the first storage device and the second storage device currently control the physical port having the IDE interface.

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72. (Once Amended) The method of claim 66, wherein:

the transmitting, from the host computer over the single physical port having the IDE interface, of the command to the second storage device includes:

setting an indicator to indicate that the single physical port having the IDE interface is busy;

transmitting, from the host computer over the single physical port having the IDE interface to the second storage device, a write command; and

the transmitting of data between the host computer and the first storage device includes:

setting the indicator to indicate that the single physical port having the IDE interface is no longer busy,

transmitting data between the host computer and the first storage device over the single physical port having the IDE interface, and

writing at least some of the data from the buffer to the storage medium in the second storage device subsequent to the setting of the indicator to indicate that the single physical port having the IDE interface is no longer busy and concurrently with the transmitting of data between the host computer and the first storage device over the single physical port having the IDE interface.

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~~73~~. (Unchanged) The method of claim ~~66~~, wherein the storage medium of the second storage device has a significantly slower transfer rate in comparison to a transfer rate of a storage medium of the first storage device.

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~~74~~. (Unchanged) The method of claim ~~66~~, wherein the second storage device is a data archival device.